

The Contested Governance of European Food Safety

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It is now a decade and half since the UK's Conservative Minister of Agriculture, John Gummer, ceremoniously fed his four-year old daughter Cordelia a hamburger to demonstrate the safety of British Beef. Since then 137 British citizens have died from a variant of Creutzfeldt-Jakob Disease (vCJD), presumably from eating beef infected with *bovine spongiform encephalopathy* (BSE)—popularly known as “mad cow disease.”² The event has become emblematic of a public policy public relations fiasco. More importantly, it signifies the kinds of dilemmas in the relations between science and regulation, market promotion and consumer protection, public authority and public opinion that riddle contemporary governance.

A few years later, an equally provocative symbolic action occurred across the Channel. In the town of Millau in southwest France, an emerging farm and anti-globalization movement, led by a sheep farmer named Jose Bové, used tractors to destroy a McDonalds then under construction. The action of *Confédération paysanne* was prompted by the imposition of American import duties on French foods like roquefort cheese, mustard, truffles, and *foie gras* in retaliation for a European Union ban on American hormone-treated beef. Again, the action symbolized the political and social tensions surrounding the public regulation of food. Banned by the European Union (EU) as a potential health risk, the U.S. and Canada claimed that the EU ban on hormone-treated was merely disguised trade protectionism. Although the World Trade Organization (WTO) disagreed that the ban was protectionist, it ruled the ban was not

scientifically supported and allowed the U.S. and Canada to impose trade sanctions on Europe.³

Most recently, President George W. Bush lambasted Europeans for contributing to hunger in Africa because of their ban on genetically-modified food (GMOs). His criticism was in part an implicit reference to the earlier refusal of Zambian and Zimbabwean governments to accept U.S. food aid that contained genetically-modified corn. Bush argued that Europe's five-year moratorium on the import of GM foods had undermined Africa's investment in bio-tech agriculture:

...[O]ur partners in Europe are impeding this effort. They have blocked all new bio-crops because of unfounded, unscientific fears. This has caused many African nations to avoid investing in biotechnologies, for fear their products will be shut out of European markets. European governments should join -- not hinder -- the great cause of ending hunger in Africa.⁴

A week before Bush made this speech, his Administration had filed a formal complaint with the WTO over the EU's regulation of GMOs.

This book is about the politics surrounding the regulation of food safety in Europe. In many respects, the issues raised by this topic are very common to many types of environmental, health, and safety regulation and to many international disputes over trade. Moreover, despite the more heated attention to food safety issues in Europe in comparison with North America, the former's scientific and regulatory concerns are roughly similar to those faced by all governments. So why a book about food safety regulation? And why a book specifically about European food safety regulation?

The regulation of food safety represents a particularly important dimension of public policy for four reasons. First, few areas of public policy so directly, personally and continually affect the well-being of every citizen. For citizens in their roles as consumers, food safety is a highly salient and frequently emotional issue, one that affects their personal health and safety. Few areas of policy failure, or threats or perceptions of policy failure, are as politically salient as those associated with food safety. Second, the regulation of food safety has important economic dimensions. Policy failure associated with food safety has often exacerbated the failure of markets to provide higher levels of food safety: the lack of political transparency and the inhibition of the working of economic incentives have been and are key determinants of the economic implications of those failures in Europe. Further, the highly integrated nature of today's food supply chain means that economic impacts have become more severe than in the past, as repercussions are felt rapidly both in domestic markets as well as across borders.⁵ Third, the regulation of food safety has an important international dimension. Historically, divergent food standards have played a critical role as trade barriers. Not surprisingly, efforts to reduce the ability of national governments to use food safety standards to protect domestic populations have been a major focus of trade liberalization, both within the EU and globally (Vogel 1995). Finally, few areas of government regulation of business have such an important cultural dimension. Both national and ethnic cultures are associated with distinctive attitudes toward food. In fact, trans-Atlantic differences in food regulations have frequently been ascribed to distinctive European and American food cultures.

In short, food safety is an important – and often highly salient - regulatory arena, with important implications for producers, trade liberalization, and cultural attitudes and norms. Food safety is a vital concern everywhere, but nowhere has it been brought into such sharp relief as in contemporary Europe. A series of food-related scares and disputes, most notably mad cow disease, dioxin contamination, beef hormones, and GMOs, have made European consumers unusually sensitive to food safety policies. This heightened issue saliency coincides with two major projects of institutional change—European integration and international trade liberalization—that have both produced new tensions among countries and accentuated the public’s sense of a loss of control over food as a trusted commodity and cultural patrimony (Vogel 1995; Phillips and Wolfe 2001). The highly contested character of food safety regulation in Europe may represent a bellwether for conflicts that are likely to become more prominent everywhere in the next few decades as technological change and globalization reshape the way our food is produced, marketed, and distributed.

In addition to its bellwether status, the subject of European food safety regulation provides an unusually rich lens into a set of broader, interrelated contemporary political developments. These issues include: (1) the growing importance of multi-level regulation, (2) the uncertain future of European integration, (3) discontent over trade globalization, (4) core disputes about risk assessment and regulatory science, (5) the evolution of frameworks for regulating novel biological technologies, (6) the shifting balance between public and private regulation, (7) the increasingly contested nature of agricultural protectionism, and finally, (8) the “transatlantic divide”. We discuss each of these briefly below.

1. Multi-Level Regulation. As the vignettes that introduced this chapter suggest, food safety regulation in Europe provides a particularly illuminating example of an emerging system of multi-level regulation. UK Minister of Agriculture John Gummer represents the national level of regulation. The European Union ban on hormone-treated beef and rules governing GMOs represent the European level. And the WTO-sanctioned US and Canadian retaliation on French roquefort and the two countries' complaint to the WTO against the EU's restrictions on GMOs represent the international dimension of regulation. While issues associated with regulatory federalism are old ones, multi-level regulation has become an especially salient issue for two reasons. First, the creation of regulatory authority at the European level clashes with pre-existing national systems of regulation. This is particularly true for food, because food safety is one of the oldest regulatory systems at the national level. Second, the extension and development of a global trade regime and the increasing density of international governance in environmental protection, human rights, and trade liberalization have created international regulatory regimes of varying importance. Multi-level systems have an appropriate role to play as regulatory processes must operate at different scales. However, they can also lead to political tensions as different regulatory levels adopt different decision-making criteria. Among the critical issues this book addresses are the conflicts and adaptations that have resulted from the interaction of regulations at the national, European, and international levels.

2. *The Politics of European Integration.* European integration has created deep and unresolved tensions between intergovernmental and federal visions of Europe. The Single European Act (1986) moved the project of market integration significantly forward. But market integration required either the harmonization of preexisting regulatory regimes or the creation of new European regulations that overrode pre-existing national policies. Food and food safety have been at the forefront of the debates over regulatory harmonization—and not least because of the importance of food as a national cultural symbol. The beef hormone, BSE, and GMO disputes have revealed tensions in the democratic character of European regulation and the organization of risk assessment and management at the European level (Majone 2000; Vos, 2000).

3. *Trade Globalization and its Discontents.* The creation of the WTO represented a new phase in the institutionalization of trade liberalization. Most importantly, it established a formal process for adjudicating trade disputes that gave substantial authority to an international trade institution. Prior to the creation of the WTO, the Codex Alimentarius Commission (a joint World Health Organization and Food and Agricultural Organization standard setting body) set voluntary food safety standards to promote agricultural trade and protect consumers.⁶ But with the creation of the WTO, the Codex standards have acquired legal authority. They are now employed by WTO dispute settlement panels to help assess whether national food safety standards constitute non-tariff barriers. This in turn has given food safety regulation a critical international dimension. (Skogstad 2001; Josling, Roberts and Orden 2004). Not surprisingly, the anti-globalization movement has responded by attacking globalization in general and the WTO regime in particular for

undermining democratic rule and comprising stringent environmental, health, and safety standards. As Bové's actions against McDonalds (and later against GMOs) indicate, the anti-globalization movement has made food and food safety a key issue in their protest. Yet even beyond the highly visible protests of anti-globalization protesters, trade liberalization has heightened the concerns of consumers about the quality and safety of their food (Krissoff, Bohman, and Caswell 2002).

4. The Politicization of Science and Risk Assessment. As President Bush's statement about Europe's "unscientific" fears about genetically-engineered foods suggests, the precise use and value of science and risk assessment have become deeply politicized. Of course, such disputes are well known to those who work with or study regulatory politics. Again, however, disputes over food safety suggest the outlines of a new stage or scale of politicization. Because of the three points mentioned above—multi-level regulation, European integration, and trade globalization—the stakes over the precise role and institutionalization of science and risk assessment have increased (Phillips and Wolfe 2001). The formation of European and international regulatory regimes has increased the overall importance of science and risk assessment, as they play a critical role in determining and assessing regulatory policies and standards. (Phillips and Wolfe 2001). On the one hand, science-based decision-making and risk assessment have become a universal discourse shared across regulatory levels. Yet on the other hand, disputes increasing revolve around distinctive approaches to assessing risks, as well as the weight that decision-makers should attach to public attitudes and preferences. An example is the controversy surrounding the role of the precautionary principle in the disputes between

the EU and its trading partners over the EU's regulatory policies toward beef hormone and the GMOs. (Noiville 2000; Löfstedt, Fischhoff, and Fischhoff 2002). Furthermore, the reform of existing food safety institutions following the mad cow scare has tended to accentuate rather than settle disputes over the institutional relationship between risk assessment (scientific evaluation and advice) and risk management (standard-setting and enforcement).

5. The Regulation of Novel Biological Technologies. The human genome project, animal cloning, stem cell research, and pharmaceutical and food bio-engineering, among many other emerging biological technologies, seem to alternately promise startling new technological breakthroughs of great value or frightening visions of "frankenfood," eugenics, and environmental contamination. Issues related to liability, intellectual property rights, and appropriate models of risk assessment and regulation are not yet well established. Here again, the European dispute over GM foods may establish a precedent for how societies will debate and regulate novel technologies that present complex ethical and scientific questions (Schurman and Kelso 2003; Bernauer 2003).

6. Public vs. Private Regulation. Across a range of regulatory fields, new questions are being asked about the potential for private "self"-regulation to serve as an alternative to costly command-and-control public regulation. In some cases, private actors have banded together to create private certifying bodies. In other cases, they have established voluntary standards (ISO 9000). In still other cases, new combinations of public and private regulation have developed. Indeed, the food industry has been a leader in

experimenting with a new system of private self-regulation called Hazard Analysis and Critical Control Points (HAACP) (Henson and Caswell 1999). This issue of public-private regulation is explored by both van Waarden (Chapter 2) and Bernauer and Caduff (Chapter 4).

7. *Contestation Over Agricultural Protectionism.* State subsidization of agriculture in Europe and the U.S. have been seen as a major roadblock to freer trade and a major barrier to the economic success of developing nations. The recent collapse of the Cancun trade talks represents the potential for this issue to disrupt world trade. To the extent that the role of subsidies declines, the role of food safety standards as non-tariff barriers is likely to increase. Thus food safety standards are likely to become increasingly contested as “disguised” (producer) protectionism. As more foods from developing nations are imported by developed nations—and as food chains in general become more global--concern about control and inspection of imported foods is likely to increase (Freidberg 2004). Pressures from consumers to tighten domestic food safety standards could also become more prominent. These new cleavages are likely to generate new alignments between consumers and domestic producers (as suggested by the idea of Baptist and Bootlegger coalitions; see Vogel 1995; Young 2003), as well as among producers in different countries.

8. *The Transatlantic Divide.* On the one hand, Europeans appear to be more concerned and more sensitive to risks associated with food than do Americans and these differences appear to be at the heart of trade conflicts over beef hormones and GMOs (Vogel 2003,

Skogstad, forthcoming and this volume; Bernauer 2003). On the other hand, institutional differences between Europe and North America may accentuate, and possibly exaggerate, these differences in risk perception. Transatlantic dialogue and adjustment can also produce patterns of convergence on food safety issues (Young 2003). Whatever the precise source and status of transatlantic differences, trade disputes over food represent a critical element of the often contentious transatlantic relationship.

A Synthetic Perspective

Are disputes about European food safety regulation interesting and important merely because they touch on this important panoply of issues described above? Is there a meaning to the contentious events so emblazoned in our minds by the symbol of the “Mad Cow?” What are the controversies over food in Europe a “case” of—regulatory failure, risk society, trading up, multi-level governance, institutional change, policy failure, cultural divide, etc.? Each of the contributors to this volume wrestled with this question. Collectively, we have searched for a *synthetic* perspective that would enable us to describe and identify what is distinctive about this policy area, and which could serve as a basis to compare it to other policy areas.

The synthetic perspective that we came to share as a group is what we call *contested governance*. The events, conflicts, and institutional reforms described in this volume represent a particular *syndrome* of policy-making and political dispute. All governance is to a lesser or greater extent contested in the sense that policy actors pursue different interests and take different positions on policy outcomes. This kind of conflict

is wholly compatible with fairly well agreed upon and legitimate institutional frameworks through which policy is typically decided and implemented. By *contested governance*, we mean to describe a more pervasive and fundamental form of conflict, one in which contestation spills beyond policy outcomes per se to who should make decisions and where, how and on what basis they should be made. Contested governance is associated with a pervasive sense of distrust that challenges the legitimacy of existing institutional arrangements.

Distinguishing Contested Governance From Policy Conflict

The term “contested governance” calls attention to the pervasively contentious quality of certain public policy domains. To be sure, we are aware that *all* domains of public policy are subject to dispute and conflict. But the scope and depth of that conflict vary across policy domains. The term “contested governance,” illuminates the particularly intense and broad-based conflict about the foundational assumptions and institutional frameworks through which a policy domain is governed. While conflict about policy outcomes is common in most political arenas, intense and broad-based conflict targeted at the fundamentals of governance is far less common (though as we will suggest below, it may be becoming more common). Much policy conflict takes the institutional rules-of-the-game for granted or merely attacks it at the margins. Of course, the day-to-day struggles of interest groups, politicians, bureaucrats, and policy experts are often battles to control the rules-of- the-game (Moe 1990). Yet these struggles are typically constrained battles of maneuver, where wins and losses take place on the

margin. “Contested governance” occurs when these day-to-day battles are displaced by more widespread public debate about the fundamentals of governance.⁷

The contested governance of European food safety regulation involves debates over four fundamental questions:

First, *on what basis* is food safety regulated? This question has to do with the broad criteria public officials will employ to determine food safety standards. For example, what role should scientific risk assessment play in shaping regulatory policy? What is the role of public opinion? How should the values of safety, economic efficiency, and innovation be balanced? On what basis should regulation be legitimated?

Second, *who* should regulate European food safety? This question addresses the balance between private and public regulation. What are the respective roles for public authorities and of firm or industry self-regulation?

Third, *where* should food safety be regulated? This question refers to the level of government or governance responsible for setting food safety standards. Specifically, what kinds of regulation should take place at the local level, the national level, at the regional (i.e. European) level, and at the international level?

Fourth, *how* should food safety be regulated? This question specifically addresses the establishment of authoritative bodies and procedures at each of these levels of governance. What institutional frameworks should be used to make, implement, and enforce decisions?

In the next section we outline a broad interpretative framework that illuminates some of the critical causes, general dynamics, and consequences of contested governance.

A Model of Contested Governance

Our use of the concept of contested governance is intended as an organizing device to help synthesize the major developments in food safety regulation in Europe over the last decade; it provides a useful interpretative framework for illuminating what the disputes over European food safety regulation are a “case” of, thereby providing a useful metric for illuminating the dynamics of similar cases. Our discussion below focuses on three dimensions of contested governance: causes, dynamics, and outcomes.

(1) Contested Governance is Triggered by Crisis Events of High Issue Saliency

Attention to foundational issues of political and institutional reform is typically prompted by a highly salient event or crisis that galvanizes public attention and intensive media scrutiny. This attention, in turn, creates windows of opportunity that may produce dramatic shifts in policy debates and coalitions (Kingdon 1995). The “triggering event” in the European food safety domain was quite clearly the BSE affair. As Figure 1 indicates, BSE was not the first food scare in Europe. Serious disputes about animal hormones preceded the BSE crisis and attracted considerable public attention. But the coverage and concern over BSE was far greater and more widespread. The BSE crisis created a shock to the institutional status quo, producing a collapse of trust in public authority that Jasanoff (1997) has called a “civic dislocation.” Although the scandal began in Britain, it soon spread to Europe and elsewhere. The three chapters on national

cases (Chapters 6, 7, and 8) and two of the chapters on policy-making at the EU level (Chapters 10 and 11) describe the institutional crises produced by BSE.

Contested governance tends to occur in policy sectors in which mass-level attention to issues is periodic, but intense—a response, for example, to brutal police behavior vividly captured on film, the horrible death of a child due to parental neglect, the siting of a landfill near a residential development, dramatic cases of espionage or corruption, a health epidemic, a fire in a crowded nightclub. These dramatic events create high issue salience because the public experiences them directly and emotionally. However, issue salience is likely to erode quickly unless the event portends or symbolizes impacts on broader publics, is seen as a pattern, or persists over time. Uncertainty about diagnosis, effects, or solutions is likely to increase the diffuse sense of the problem and heighten the issue salience. As suggested by the biotechnology dispute in Europe (see the chapter by Ansell, Maxwell, and Sicurelli), media and social movement interest are probably important for maintaining and amplifying issue salience

These triggering events disrupt taken-for-granted assumptions about how the world does or should work. They are what La Porte characterizes as “institutional surprises” (La Porte 1994). Something that was assumed safe and widely used is suddenly found to be unsafe; danger and threats are suddenly discovered to have always been present where least expected. Although consumers are well aware of the possibility of food contamination, few consumers expected to contract a brain wasting disease from eating meat. We suspect that there is something particularly disquieting about the disruption of routine assumptions that motivates future loss of trust.

These triggering events typically produce a diagnosis of prior institutional or political failure. Crises initiated by natural or uncontrollable causes are probably less likely to encourage this diagnosis than crises easily attributed to “policy disasters” (Dunleavy 1995) or “policy fiascos” (Bovens and T’Hart 1996). Moreover, the event needs to suggest systematic, rather than merely fluke, institutional errors.⁸ Looking into the future, the triggering event ought to *portend* future occurrences of the event. And the perceived risk of future impacts ought to be widespread. When it galvanized public attention in 1996, the mad cow “scandal” suggested systematic conflict-of-interest on the part of UK authorities and the cases discovered at the time threatened to be merely the tip of the iceberg.

Finally, a powerful triggering event is likely to be “societal” in the scope of its consequences—e.g., to transcend the boundaries between public and private and between institutional and personal. The BSE crisis, for example, was not only a crisis for public authorities, but also quite clearly a crisis for private food producers and retailers. Moreover, it was not merely a problem for these public and private institutions, but of course also confronted consumers with a personal choice about meat consumption. The “societal” scope of the crisis is implicit in the broad focus on food cultures developed by van Waarden (Chapter 2) and in the comparative analysis of institutional trust developed Kjærnes et al. (Chapter 3).

(2) Although triggered by crises events, contested governance is shaped by longer-term social, political, and economic trends and the institutional tensions they produce.

The importance of a triggering event can lead analysts to discount the longer-term trends and tensions that ultimately contribute to contested governance. While the triggering event reframes interpretations of both past and future, it also reveals long-term social, political, or economic trends or institutional tensions. From this perspective, the triggering event is more like a catalyst for the crisis than a full causal explanation. We recognize the danger of such an argument. In hindsight, it is easy to interpret prior events or institutional tensions as signals of imminent crisis. Nevertheless, an overly narrow focus on the triggering event is likely to misanalyze the causes and consequences of contested governance.

While we would characterize food safety regulation prior to the BSE crisis as conflictual rather than contested, prior conflicts conditioned the public response to this particular policy failure. As suggested by Borraz, Besançon, and Clergeau (Chapter 6), the French reaction to BSE was shaped by an earlier scandal that attributed responsibility for the consequences of a contaminated blood supply to the government. Hence, the French were primed to suspect government malfeasance. More generally, as Table 1 suggests, a heightened sensitivity to food safety and health issues in Europe predates BSE. Prior debates about beef hormones reach back to the 1970s in Europe and remained controversial through the 1980s (See Skogstad, Chapter 9). The U.S. also had a series of “food scares” in the 1980s and 1990s. None of these, of course, provided the same magnitude of triggering event as BSE in Europe. But even after the recent discovery of a case BSE in the U.S.--which produced significant media attention and public suspicion--it appears that the “lid was put back on” the conflict. This however did not occur in Europe.

Table1-1 About Here

The most proximate long-term change that led to the BSE crisis were changes in the technology of feeding livestock. Feeding cows meal composed of the remnants of other cows was the technology that allowed BSE to spread within Europe. Obviously, the debate over biotechnology that followed on the heels of the BSE scandal was also about the changing technology of producing food. More generally, the technology of food production and marketing has become so complex and technologically sophisticated that the regulation of food has become increasingly challenging. Even before the BSE scandal, new systematic conceptions of “farm to fork” regulation and new strategies of regulation (e.g., HACCP) were already being developed by European regulatory agencies. As discussed in the chapters by Van Waarden (Chapter 2), Bernauer and Caduff (Chapter 4), Borraz, Besançon, and Clergeau (Chapter 6), and Steiner (Chapter 8), these new strategies reflect increasing pressures for industrial self-regulation, a trend that challenges the traditional boundaries between public and private regulation.

The issue salience of BSE, as a result of the directly experienced fear and uncertainty of consumers, is certainly an essential part of the story of the contested governance of European food safety. But attention to BSE can discourage analysts from developing a fuller appreciation of the way other contextual factors have shaped the timing and extent of the crisis. The entanglement of food issues with larger institutional and political debates has contributed to the intensity and duration of contestation. Specifically, the advancing economic and political integration of the European Union and

the creation of the WTO trade regime were important contextual variables that interacted with these food scares to produce contested governance in Europe.

As Hooghe and Marks (2001) argue, European integration has generated intense debate about whether the European Union is the embodiment of a neo-liberal or a regulated capitalism project. As detailed by Alemmano (Chapter 10), food was recognized quite early in the EU's history to be a stumbling block to deeper market integration. Consequently, a significant body of European regulation has been built up around food. BSE brought this issue to a head when the continental European states banned British beef, which according to Alemmano brought a new appreciation of the tension between market integration and public-health in EU regulation. However, the tension extends beyond even public health concerns to the way certain foods are emblematic of national cultures. The dispute around the pasteurization of French cheese is a good illustration of how food safety and cultural sovereignty have become intertwined. As suggested by Van Waarden's (Chapter 2), the continual chaffing over the harmonization of food standards created by the European integration process and the framing of these conflicts as disputes over cultural sovereignty prepared European public opinion for its reaction to the beef hormones, BSE, and GMO disputes. His chapter also highlights the diversity of institutional logics by which European (and other) nations regulate food; the Europeanization and internationalization of food regulation bring these different institutional logics into uneasy contact with one another.

Beyond the issue of European integration per se, contention surrounding the Common Agricultural Policy (CAP) has subtly shaped the contestation over food safety regulation. The BSE crisis was in part produced by the way cows were fed in Europe, a

feeding regime that some have argued was indirectly encouraged by CAP (Fisher 2000). The nearly continuous controversy over the last decade around CAP reform may have also contributed to the saliency of food issues for European publics.

A third factor associated with European integration is the way that it has simultaneously and subtly affected institutional trust and the opportunity structure for the mobilization of political issues. Bernauer and Caduff (Chapter 4) argue that the multi-level structure of European food safety regulation has itself discouraged the reestablishment of institutional trust in food safety regulation. The chapters by Borraz, Besançon, and Clergeau on France (Chapter 6) and Rothstein on the UK (Chapter 7) suggest that reform pressures from below can produce conflicts between national and European regulatory strategies.

A more subtle source of conflict is the perceived democratic deficit at the European level. As Skogstad (Chapter 9) argues, concern about the legitimacy of EU regulation is a source of the “political” style of its decision-making. At the same time, European level regulation has provided new opportunities for the mobilization of consumer and environmental issues and groups that may have a weaker voice at the national level--an issue explored in the chapter by Ansell, Maxwell, and Sicurelli (Chapter 5). In part, these new opportunities are related to the problem of a European democratic deficit. As Skogstad notes, the European Commission has encouraged the representation of European-wide consumer and environmental interests.⁹

Similar points can be made about the WTO. As the anti-globalization movement attests, the line of battle has been drawn between market liberalization and national environmental and safety regulation. Again, food has become a central symbol of

consumer, producer, and cultural sovereignty and agricultural protectionism has become a central focus of trade conflict. In addition, as described in the chapter by Young and Holmes (Chapter 12), the outcome of multi-level dynamics of food safety regulation among EU member-states (especially “trading up” dynamics) creates spillover conflicts for the WTO regime. Thus, the resolution of intra-EU conflicts is likely to create conflicts between the EU and its trading partners. Moreover, conflict at the international level is exacerbated because international food safety standards are more authoritative under the WTO regime than under its GATT predecessor. In fact, the conflict at the international level is similar to the tensions created by the need to harmonize standards at the European level. As Young and Holmes and Noiville (Chapter 13) emphasize, the resolution of such conflicts will require appeals to both science and risk analysis, which typically entail contestable interpretations of both data and decisionmaking. Noiville argues that the precautionary approach to risk adopted by the EU is not antithetical to the science-based decisionmaking required by the WTO, but that the wide latitude for interpretation of WTO requirements is likely to enhance political conflict. Perhaps the more general point—a theme that runs through many of our chapters—is that in the context of pervasive distrust, the resolution of inter-jurisdictional conflicts through scientific risk analysis is likely to *exacerbate* rather than mitigate conflict.

Table 1-1 about here.

(3) Contested governance will tend to occur in policy sectors in which there are strong institutional and political asymmetries in the character of policy-making and public management.

Contested governance is likely to emerge when policies or institutions can be perceived to have facilitated or failed to adequately respond to important public concerns. Contested governance is particularly likely to emerge when periodic but intense public scrutiny confronts an extensively institutionalized policy sector in which day-to-day routine decisions are delegated to experts or administrators with little on-going attention or interest from the public. Buonanno's discussion of the EU's "comitology" system of expert decisionmaking provides a good example (Chapter 11). In the face of the BSE crisis, this system for providing scientific and political advice to the EU Commission was strongly criticized for its lack of transparency. We suggest three conditions that contribute to producing tension between intense public scrutiny and extensive routine administrative or expert decision-making.

(1) contestation is accentuated where there are sharp contrasts between demands for procedural and substantive rationality. Procedural rationality entails compliance with pre-established rules, protocols, or norms typically designed to guarantee equity, rights, accountability, or objectivity. By contrast, substantive rationality is measured according to whether outcomes themselves are regarded as true, correct, or valuable. Many of the chapters in the book suggest that conflict over food safety regulation at and between

levels of governance stem from this tension between procedural standards (e.g., risk analysis) and public perceptions of risk.

(2) contestation is accentuated where public decision-makers must balance multiple goals and where the costs and benefits of governance are asymmetrically distributed, such that some persons or constituency groups bear the costs while different persons or constituency groups benefit. Under these conditions, real or perceived political bias or conflict of interest is likely to contribute to the loss of legitimacy. To be sure, public decision-making must often balance multiple goals or impose asymmetric costs and benefits, as exemplified by many environmental and natural resource conflicts. But public skepticism is likely to be particularly sharp where a public agency's mandate (or desire) to balance multiple goals clashes with the public's insistence on prioritization of some problems over others. The reform of food safety agencies at the national and European levels were motivated, in part, by the strong public perceptions that existing institutions had conflicts-of-interest.

(3) contestation is accentuated where the public has limited exit options. The ability to avoid state regulation or to find alternative private provision of goods will reduce the urgency of contestation. Although the Kjærnes et al. (Chapter 3) note that consumers often adopt private strategies for ensuring food safety and the chapters by Borraz, Besançon, and Clergeau (Chapter 6) and Steiner (Chapter 8) note the importance of private quality schemes for guaranteeing the safety of food, most consumers remain highly dependent on forces well beyond their control for the provision of their food.

These factors interact with the complexity and diffuseness of problems and institutions. Where problems are complex and do not permit easy solution, they are likely to erupt periodically into public debate. Institutional complexity itself probably contributes to the contested nature of governance. Where public responsibilities are shared across multiple levels of government (multi-level or federal government) or powers are shared between different institutions (separation of powers), a structural potential is created for disputes over the relative authority and power of different institutions. Most importantly, contested governance will occur where specific disputes (specific to a policy sector) become entangled with more general disputes about the division of powers and responsibilities between different branches or levels of government. While the governance of space policy in the U.S. has been disputed after the loss of the Columbia space shuttle, there was no discussion about whether the Federal executive branch was the appropriate place to administer space policy. However, European and international food safety conflicts have been entangled in a much more general dispute about the regulatory authority of the EU and the WTO.

(3) A precipitous and pervasive loss of institutional trust and legitimacy leads to a

“snowballing” of contestation.

Issues of trust and institutional legitimacy are brought into stark relief during episodes of contested governance. The loss of trust in food and of institutional trust in food safety authorities following the BSE crisis, the difficulty of restoring it, and the manifold ways this loss of trust affects institutional reform and even international trade is a common theme that links all the chapters of the book. Although public and private institutions may have to work hard to maintain trust and

legitimacy with their publics even under routine conditions, contested governance is typically characterized by both sudden and pervasive loss of trust and legitimacy and an uphill battle to restore it. Van Waarden (Chapter 2) and Kjærnes et al. (Chapter 3) focus, in particular, on the issue of the public's trust in the safety of their food. Both chapters suggest that national variation in attitudes toward food and government regulation of food make it difficult to produce European-wide solutions to the loss of trust in food safety institutions.

Confronted with a triggering event with high public saliency, public and private institutions (especially those used to low levels of public scrutiny) will often try to restore the *status quo ex ante* by adopting public relations strategies. Such strategies often unwittingly accentuate the public's distrust because they are often interpreted as signals of "business-as-usual" or of vested interests.¹⁰ Monsanto's attempt to manage the controversy over the introduction of bioengineered foods in Europe, as described by Ansell, Maxwell and Sicurelli (Chapter 5), provides a good example of this process.

The loss of institutional trust and legitimacy may shift the political initiative to new institutions or actors. Public opinion polls reveal that the European public exhibits considerable cynicism toward government authority and places greater trust in consumer and environmental NGOs (Gaskell, Allum, and Stares 2003, 32). Moreover, the loss of trust and legitimacy is probably a critical mechanism producing a snowballing effect in which "conflict begets conflict." Characteristic of contested governance, snowballing occurs either where a specific crisis initiates or encourages further sectoral disputes or where the implications of one or more crises "spillover" into related issue areas. For instance, while disputes over beef and milk (rbst) hormones, BSE, dioxins, and GMOs were distinct issues within the food sector, their contestation was cumulative (see Table

1). Perhaps most dramatically, the hormone and BSE disputes spilled over to shape the public response to the growing and marketing of GMOs (see the Ansell, Maxwell, and Sicurelli chapter; Chapter 5).

Just as we argued that contested governance must be understood in terms of longer-term institutional tensions and conflicts, we observe that the dynamics of trust and legitimacy can also be understood from this broader perspective. Van Waarden (Chapter 2), Kjærnes et al. (Chapter 3) and Bernaur and Caduff (Chapter 4) suggest that restoration of trust in this case was made more difficult by the shifting institutional terrain that distributed regulatory authority across levels of governance (national, European, and international) and by the trade conflicts that have arisen with the internationalization of food markets.

(5) Contested governance leads to wholesale institutional reform

Long-term trends and institutional tensions are not simply “risk factors” for contested governance; they also shape the dynamics of crisis response and institutional reform. To respond to these trends and tensions, criticisms of existing institutional arrangements or demands or suggestions for institutional reform in a policy sector often build up over time under non-crisis conditions, but lack clear political or institutional incentives to them. When a powerful triggering event does occur, these criticisms and reform plans will shape the diagnosis of the problem and provide blueprints (possibly contradictory) for institutional transformation. There is both supply and demand argument here. On the demand side, the magnitude of the triggering event often leads to a search to attribute blame and obviously to diagnose the underlying problems.

Criticisms or reform plans that pre-date the crisis events often provide elements of a both a “smoking gun” and a ready diagnosis of what ails the system. Contestation also provides a window of opportunity to press for reform. Often reforms have been stymied by vested interests or lack of political will, but remain waiting in the wings (March and Olsen 1989, 69-94). A common theme of many of our chapters is that institutional reform trajectories evolve through interaction with peripheral issues. For instance, our chapter on both Germany and France suggest that labeling and private quality assurance strategies--that are as much about food marketing as they are about food safety—were given a boost by reform efforts.

The combination of a sharp decline of trust and institutional legitimacy, the contagious, snowballing quality of contestation, and this window of opportunity for reform will produce the possibility of particularly large-scale institutional reform. Given the failure of earlier public relations strategies, reform itself will become a highly symbolic attempt to restore trust and legitimacy. The more trust and legitimacy are important resources for governance—as they certainly are in the case of food safety—the more we should expect reforms to dramatically signal the competence, accountability, and political independence of the new institutions. Reforms will be especially driven by the logic of attempting to restore trust and legitimacy. If successful, these institutional reforms can bring some closure to episodes of contested governance. Our chapters on the UK, France, and Germany and our three chapters on European level institutions all convey how the BSE scandal produced a logic of wholesale institutional reform driven by the imperative of restoring trust and legitimacy to national and European institutions. In

each country case and at the European level, new or fundamentally reorganized food agencies and new more integrated food safety legal regimes were the result.

While the institutional reforms at the national and European level were both broad and deep, it is important not to convey the message that these reforms resolved the basic problems illuminated by regulatory failures. On the whole, the chapters on the national and EU reforms suggest guarded optimism about improvements in European food safety regulation. However, these chapters also voice cautionary notes. Most importantly, all the chapters note continued problems of institutional fragmentation. In the French, German, and EU cases, for instance, risk analysis functions were isolated in independent agencies, creating problematic relationships with the organization of risk management. Rothstein's chapter on the UK (Chapter 7) emphasizes that developments on the EU level increase the vertical fragmentation of food safety authority. Moreover, he demonstrates that despite claims about independent and transparent scientific risk analysis, political considerations have hardly been banished from the decision-making process. Skogstad (Chapter 9) makes similar observations about the EU, which she describes as having a "meditative" policy style. In addition, both Alemmano (Chapter 10) and Buonanno (Chapter 11) indicate that expectations for a powerful European food regulatory authority must be tempered by the reality of a small agency with highly circumscribed competencies.

To summarize, we argue that over the last decade, European food safety regulation represents a case of contested governance. We argue that the syndrome of contested governance occurs when a highly salient triggering event interacts with long-term trends and institutional tensions to produce a pervasive loss of institutional trust and

legitimacy (causes). Strategies for restoring trust and legitimacy are themselves contested because they collide with institutional tensions over who, where, how, and on what basis policy should be made and implemented. Consequently, the scope of contestation is likely to expand, become unruly, and spillover into related issue areas (dynamics). The imperative of restoring trust and legitimacy then interacts with the expanded scope of contestation to produce wholesale institutional reforms (outcomes).

Contested Governance in Comparative Perspective

It is worth drawing out the contrast here with U.S. food safety regulation, as Skogstad (Chapter 9) does in detail. Like Europe, the U.S. has also suffered important episodes of food contamination and the U.S. food safety system has been criticized for its institutional fragmentation. Concern has also been expressed about potential conflict-of-interest problems. However, none of these events were of the same magnitude or salience as the BSE scandal. Nor were they tainted with the same sense of “scandal.” Therefore, they have raised concerns, but have not triggered the same loss of trust and legitimacy. Of course, the U.S. also faces many of the same economic, technological and political challenges in regulating food that Europe have confronted. But the tensions associated with market integration or European state-building are not present in the U.S. case. Moreover, the role of the U.S. federal government in regulating food safety is hardly a matter of conflict and the basic institutional architecture has remained stable. In sum, U.S. food safety regulation may be conflictual, but it is not at present contested.

Although we have argued that contested governance is not *politics-as-usual*, our analysis suggests that it may become more common in the future. Here, we point to the features of food safety regulation shared by many other policy domains. First, globalization of markets and the creation (or strengthening) of international regimes to regulate them are increasingly common across many economic sectors. International regimes create a form of multi-level governance that can produce disputes between different levels of authority. Second, the inherent difficulties of effective and efficient regulation of complex technological and economic processes are hardly unique to food production, processing, and marketing. These complexities often push regulation in two contrary directions: toward more centralized forms of state regulation and toward decentralized forms of private self-regulation. Many other products and services beyond food are becoming more difficult to regulate and producing similar types of tension between public and private regulation. Third, the enhanced importance of the “regulatory state” and the political conflicts it entails create a difficult balancing act for regulators that can easily lead to the perception of conflicts-of-interest. Fourth, the expanded reliance on science and risk analysis to settle policy conflicts has led to a deeper politicization of science and risk analysis. Each of these factors can lead, in the context of highly salient triggering events, to a deep questioning of the fundamental precepts of governance.

An Overview of the Book

The thirteen essays in this volume are divided into four sections.

The first group of essays addresses the social and economic context of European food safety regulation. The four essays in this section place national food regulation in an historical and cultural context, describe public attitudes toward trust in food safety in different European countries, trace the economic structure of the European food industry, and examine the political mobilization of opposition to GMOs at the national and European levels. The central theme that underlies them are the significant challenges that the EU faces in restoring public trust in food safety in light of long-standing cultural and national differences in standards for food safety and quality, the Europeanization and globalization of food production and consumption, variations in public confidence in food safety within the EU, and the political mobilization of European consumers.

The second group of essays focus on European food safety regulation at the national level, exploring political and institutional changes in food safety regulation in three critical EU Member States, namely France, Great Britain and Germany. In each of these countries, significant institutional changes have taken place in the way food is regulated. In France and Britain, new regulatory agencies have been created while an equally important but structurally different change in regulation occurred in Germany,

The third group of essays examines changes in food safety regulation at the European level. They place European regulatory policies and politics in a comparative context, trace the legal evolution of European food safety regulation, and examine the political factors underlying the creation of the European Food Safety Authority. The final group of essays focuses on the international dimension of European food safety regulation, offering differing perspectives on the relationship between EU rules and those of the World Trade Organization.

Frans van Waarden's essay "Taste, Traditions, Transactions and Trust: The Public and Private Regulation of Food," places the issue of food regulation in historical perspective, noting that compared to other aspects of public policy, food regulation has frequently been highly contested. For both cultural and economic reasons, different countries have placed values on different dimensions of food and these have frequently clashed. Moreover, in an increasingly globalized economy, where consumers are consuming both natural and processed food from many different countries, the lack of public trust in food safety and quality has become exacerbated. It has become increasingly difficult for to assure consumers that their increasingly diverse and stringent demands with respect to food preparation and composition are being meet.

Some of this slack is being addressed by private firms and certification agencies, but ultimately these control mechanisms too must be backed by public authority. However, each regulatory failure has created new demands for additional private and public controls, which invariable turn out to be inadequate, thus creating pressures for still more controls.

"Contestation over Food Safety: The Significance of Consumer Trust," by Unni Kjærnes, Christian Poppe, Arne Dulsrud, and Eivind Jacobsen also addresses the relationship between public and private authorities. Its central theme is the issue, problem and challenge of trust: how can consumers be assured that the food they are consuming has been produced, processed and distributed in ways that meet their expectations regarding both its quality and safety? The evidence cited illustrates the complexity of this problem. Notwithstanding European economic integration, consumer trust is primarily generated within a national context. Consumers in European countries exhibit markedly

different degrees of trust in the food they consume. At the same time, the relationship between private and public authorities varies substantially within Europe. Both these phenomena suggest the magnitude of the challenges that confront the EU's efforts to promote a European "trust regime."

"Food Safety and the Structure of the European Food Industry," by Thomas Bernauer and Ladina Caduff also examines the role of institutions in fostering public trust. Their analysis focuses on two dimensions: the relationship between private and public authorities and the relations between public and private systems of regulation. These are related: the growing stringency of food safety regulation at the European level, dominated by multi-level governance, has been accompanied by an increase in market concentration in food processing and distribution. Many firms have established their own food safety programs, often associated with HACCP, (Hazard Analysis and Critical Control Point Systems). While their adoption varies widely across different countries, they have become a critical strategy for many large firms seeking to enhance consumer confidence in their products. If small producers are to survive in this increasingly competitive environment, it is critical that Europe establish a highly effective, credible, and centralized system of food regulation – a challenge that has to date proven elusive..

"Protesting Food: NGOs and Political Mobilization in Europe," by Christopher Ansell, Rahsaan Maxwell and Daniela Sicurelli explores another critical dimension of the contemporary politics of food safety regulation in Europe. It describes the critical role that NGOs have played in mobilizing opposition to genetically modified foods in Europe at both the European and national levels. The anti-GMO movement is both broad and diverse, involving environmental groups, consumer groups, farmers and development

organizations. Collectively this movement has creating a multi-faceted advocacy coalition incorporating activists and supporters with a broad spectrum of interests and priorities.

A particularly important role has been played by Greenpeace. In both France and Italy, Greenpeace had a critical role in both increasing public awareness of and in mobilizing public opposition to GM foods, though the framing of this issue has varied in different countries. Critical to their success has been the ability of anti-GM activists to create political linkages across the member states. This has enabled them to effectively target EU institutions, while at the same time retaining an important national focus. The anti-GMO movement has built a multi-level organization, one capable of effective mobilization at both the national and European levels. It has significantly impacted both national and EU regulation of this new agricultural technology and contributed to the highly contested nature of much of European food safety regulation.

The second group of essays explores the reform of food safety systems at the national level. In “Reforming Food Safety Regulation in France,” Olivier Borraz, Julien Besançon, and Christophe Clergeau argue that the newly create French food safety agency, AFSSA (*Agence française de sécurité sanitaire des aliments*), has experienced considerable difficulty in establishing an independent role within the France state. Established by legislation in 1998 as a response to a series of public health policy failures in France and with the purpose of enhancing the legitimacy of public regulation, it remains a relatively weak agency. In many respects its role in shaping food safety policy in France is both limited and undefined: the critical definition of rules and norms remains the province of authorities outside the agency. AFFSA also finds itself constrained by

two important trends, which both proceed and postdate it, namely the increasing role of private interests in the management of food safety and the commitment of the French government to protect French agricultural interests.

Nonetheless AFSSA has managed to play an influential role in affecting specific food safety policy decisions, most notably both the maintenance and the termination of the French embargo on British beef and public policies toward BSE. In both cases the agency adopted a highly precautionary approach. Whether it will prove capable of maintaining consumer confidence in the face of future food safety crises remains, at this juncture, problematic.

Henry Rothstein's essay, "Reforming Food Safety Regulation in Britain" explores the challenges faced by the Britain's Food Standards Agency. Established in 2000 as a response to a dramatic decline in consumer confidence with the government's ability to effectively regulate food safety caused in large measure by the BSE scandal, the Agency was heralded as inaugurating a new era of transparency in consumer protection. It was based on three principles, namely putting consumers first, openness and independence. Rothstein critically explores the agency's performance by describing and evaluating its responses to two food safety issues--BSE in sheep and food allergies. The latter reveals a number of important limitations. These include a lack of coherence in regulatory decision-making, its inability to give priority to the interests of consumers, the continued role played by business and economics pressures in shaping regulatory policy, the inability of policy-makers to coherently and consistently make risk management decisions in cases of scientific uncertainty, the difficulty of implementing stakeholder

participation and a lack of independence. Thus, notwithstanding the political context that led to its creation, FSA continues to reflect Britain's "soft" regulatory style.

"Reforming Food Safety Regulation in Germany," by Bodo Steiner describes the institutional changes made by the German government in response to the emergence of the first cases of BSE in Germany in 2000. The most striking change was the renaming of the Federal Ministry of Agriculture and Forestry as the Federal Ministry of Consumer Protection, Food and Agriculture that took place in January 2001. This change was accompanied by a strengthening of the audit capacity of the German government as well as the establishment of a large-scale private sector quality assurance scheme. The latter shifted regulation away from publicly mandated food safety regulations toward industry-led initiatives. On balance, a number of changes in regulation, administration, and liability standards appear to have improved the effectiveness and the allocative efficiency of German food safety regulation.

The third group of essays explores food safety regulation at the European level. *Regulating Food Safety Risks in the EU and North America: Distinctive Policy Styles*, by Grace Skogstad places the EU's approach to regulating food safety risks in a comparative context. A nation's approach for determining and legitimating food safety regulation – or its food safety regulatory policy style -- relies on a combination of three elements, namely science, democratic processes of representative and participatory government, and market mechanisms and incentives. These vary widely among US, Canada and the EU: the first relies on state regulation of private industry, the second on state officials and the third on political officials.

Case-studies of three current critical areas of food safety regulation, namely hormone-fed beef, rBST milk and genetically modified foods, demonstrate how differently each political system has approached the regulation of the health and other risks associated with these agricultural technologies. Underlying these differences are the centrality of democratic norms and the weaker authority of science in EU food safety regulation as compared to the US and Canada. And these differences are reinforced by both different cultural attitudes toward food produced by new technologies and a series of regulatory failures in Europe that have undermined public confidence in “appeals to objective knowledge” associated with regulatory science.

Alberto Alemanno’s essay, “The Legal Evolution of European Food Regulation,” traces the historical evolution of food regulation by the EU. This regulation has gone through four phases. During the first phase, which began in 1962 and lasted through 1985, the European Community attempted to harmonize food law. This program met with limited success. Accordingly, from 1985 through 1997, the Commission adopted a “New Approach,” which relied on instead on mutual recognition of national standards and “framework” directives. Both of these approaches focused primarily on promoting intra-European trade in foodstuffs and paid relatively attention of safety issues. Beginning in the mid 1990s, faced with increasing public concern over food safety, the EU adopted a new set of comprehensive policies whose aim was to strengthen European food safety standards. These included the adoption of a Green Paper establishing “General Principles of Food Law in the EU in 1997 and the establishment of a DG for Consumer Protection and Health which was made responsible for coordinating scientific risk assessments. Finally in 2003, the Commission established the European Food Authority, making it

responsible for providing scientific advice for all aspects of food safety regulation. , Alemanno also notes a number of important differences between the EFA and the American Food and Drug Administration. These differences reflect both the unwillingness of European national governments to cede too much authority to a centralized regulatory authority as well as the more politicized context of risk assessment in Europe.

Laurie Buonanno's essay, "The Creation of the European Food Safety Authority," focuses the factors underling the recent creation of a European Food Safety Authority. This new regulatory body emerged from a complex set of developments, the most important of which was the inadequacy of the EU's comitology system to adequately address the recurrent food safety crises to which European consumers have been subject. The agency in turn both reflects and reinforces a significant change in the division of authority both within the EU and between the EU and the member states.

The final two essays place the regulation of European food safety in an international context. "Protection or Protectionism? EU Food Safety Rules and the WTO," by Alasdair Young and Peter Holmes focuses on the challenges posed by the EU's obligations under the World Trade Organization to its policy autonomy in the area of food safety. The dynamics of market integration within the EU, along with the EU's highly legalistic character and its high threshold for policy change, has made it particularly difficult for the EU to comply with adverse WTO judgments. A substantial number of EU food safety rules have been the cause of trade friction, and two have led to formal trade disputes. This reflects the fact that a number of EU rules are more risk averse than those of its trading partners.

However, detailed analysis of recent WTO jurisprudence suggests that many EU regulations are likely to pass legal scrutiny as the WTO's Appellate Body has repeatedly affirmed the right of the EU to choose whatever safety objectives it wishes. While conflicts may emerge with respect to those regulations which are imposed in order to reassure the European public but which have no scientific basis, the EU's new procedures for making food safety regulations will mean that its future rules are less likely to be subject to international legal challenges. Indeed, one important purpose of the new European food safety agency is precisely to make EU food safety standards consistent with the provisions of the SPS (Sanitary and Phytosanitary Measures) agreement. However, in the case of already existing rules which enjoy widespread popular support, of which the hormone ban and possibly regulations governing GMOs represent important¹ examples, the EU has found or is likely to find it difficult to adjust its policies to bring them into compliance with adverse rulings. In sum, the WTO is affecting how European regulations are being made and justified, but to date it has had less impact on the substance of regulations themselves.

Christine Noiville's essay "EU Food Safety and the WTO," explores a similar set of issues, but reaches a different conclusion. Carefully analyzing the provisions of the provisions of the WTO agreement governing the permissible use of food safety and processing standards as non-tariff barriers, she points to a number of ambiguities that might well pose legal challenges to highly risk averse EU food standards. One of the most important of these has to do with the precautionary principles, a number of whose dimensions are more restrictive under WTO than under EU rules.

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ENDNOTES

¹ We thank Todd La Porte, the three anonymous reviewers, and the project participants for their help in writing this introduction.

² The links between BSE, beef consumption, and vCJD have still not been definitively established, but laboratory studies strongly support the transmission mechanism of consumption of BSE-infected beef (Andrews, et al. 2003). The number of deaths from vCJD are based on December 1, 2003 figures reported by the National CJD Surveillance Unit website (<http://www.cjd.ed.ac.uk>).

³ The ruling was appealed and the appellate body ruled that the EU's ban was designed to protect the health of EU consumers and not simply a form of disguised protectionism.

⁴ Transcript of Commencement Address at United States Coast Guard Academy, Office of the Press Secretary, May 21, 2003.

⁵ For the seven most commonly ingested pathogens alone, annual illness estimates for the US range from 3.3 to 12.3 million with 1900 to 3900 annual deaths (Buzby and Roberts 1996). Medical costs and lost productivity due to the most critical four pathogens in meat and poultry alone amount to 4-4.6 billion dollars annually (Crutchfield 2000). For Germany the annual costs were estimated to amount to at least 510 million Euro in 1999 (Werber and Ammon 2000)

⁶ The Commission is composed of member state representatives that vote on standards recommended by scientific advisory committees.

⁷ Our distinction between contested governance and policy conflict is similar, though not identical to, Schön and Rein distinction between “policy disagreements” from “policy

controversies.” They argue that the later tend to be “intractable, enduring and seldom finally resolved” (Schön and Rein 1994, 4). They argue that “intractable policy controversies” require special attention because they cannot be resolved by allowing politics-as-usual to take its course.

⁸ Organizational errors can often be rationalized as “operator errors” or minimized as “one-off” events. See, for instance, Sagan (1993).

⁹ See the discussion on input- and output- legitimacy by Skogstad (2003).

¹⁰ See the discussion by Hellström and Jacob (2001, 95-7) on the failure of risk communication in the BSE case.